ACCESSIBILITY FUNDAMENTALS

A GUIDE FOR ACCESSIBILITY REQUIREMENTS OF THE BUILDING CODE

This pamphlet provides highlights of accessibility provisions of the building code for new commercial structures and alterations to existing commercial structures. Please consult the appropriate codes and standards for information not shown or discussed herein.

WHAT LAWS GOVERN ACCESSIBILITY REQUIREMENTS

FEDERAL LAW

New commercial construction in the United States is required to comply with Title III of the Americans with Disability Act (ADA) as enforced by the U.S. Department of Justice. New multifamily dwellings must meet the requirements of the Fair Housing Amendment Act (FHAA) as enforced by the U.S. Department of Housing and Urban Development.

STATE LAW

All construction in Virginia is required to comply with the Virginia Uniform Statewide Building Code (VUSBC), which incorporates by reference the Building Officials and Code Administrators (BOCA) National Building Code. Accessibility provisions are contained in Chapter 11 of the BOCA Code and the referenced standard CABO/ANSI A117.1, *Accessible and Usable Buildings and Facilities.*

STATE vs. FEDERAL

While the spirit and intent of the state and federal laws are the same, the technical provisions are not. In fact, in many cases, the state law is more restrictive than the federal law. A new building or renovated space must be carefully designed to meet the requirements of both laws. However, Fairfax County only enforces state law, and therefore this brochure does not include any information regarding the ADA or FHAA.

THE PERMIT APPLICATION CENTER

OFFICE OF BUILDING CODE SERVICES

Hours of Operation for Walk-in Customers:
Monday through Friday (except holidays)
8:00 a.m. to 4:00 p.m.

Other publications and forms are available on the DPWES website:
www.co.fairfax.va.us/dpwes

Herrity Building
12055 Government Center Parkway
Fairfax, Virginia 22035
Telephone: 703-222-0801
TTY: 703-324-1877
Telephone Hours: 8:00 a.m. to 4:30 p.m.

WHAT IS THE BASIC PHILOSOPHY THAT DRIVES ACCESSIBILITY PROVISIONS

All accessibility laws, codes, and ordinances have the same approach in mind: help provide independence for persons with physical disabilities and provide equal access to facilities, buildings, and services. When applying this philosophy to building construction, it is important to remember that every area that an able-bodied person has access to, a disabled person must also have access. That means disabled persons should be able to use the same service counters, telephones, elevators, restrooms, and public showers that able-bodied persons use.

WHAT ARE THE BASIC BUILDING BLOCKS FOR ACCESSIBLE CONSTRUCTION

WHEELCHAIR REQUIREMENTS

The clear floor spaced required to accommodate a wheelchair and its occupant is shown in Figure 1. For a wheelchair user to make a 180 degree turn, a circular floor space is required (Figure 2). An alternate to the circular floor space is a T-shaped space; see CABO/ANSI A117.1 for more information.

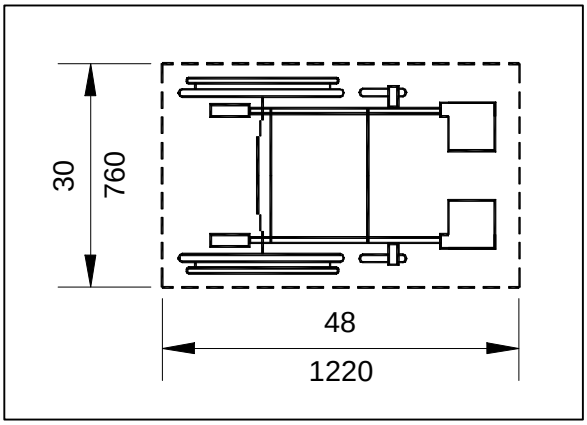

Figure 1: Wheelchair Clear Floor Space

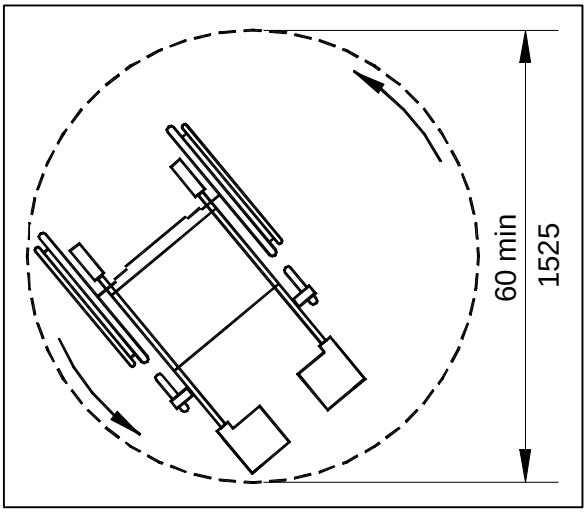

Figure 2: Wheelchair Turning Space

In the figures in this brochure, the number above the dimension line is in inches and the number below is in millimeters. Figures are not to scale.

APPROACH

An object, appliance, or element must be designed such that it can be approached by a wheelchair user from the front or side of the wheelchair clear floor space. When elements, such as a public telephone, are located in an alcove, the dimensions of the alcove must be able to accommodate the wheelchair clear floor space. All accessible objects or elements and their controls are required to be reachable by a wheelchair user. Reach limits are dependent on approach and/or the existence of obstructions, such as a shelf. For more information on these limits or other requirements not mentioned here, please refer to CABO/ANSI A117.1.

ACCESSIBLE ROUTE

An accessible route is a path which connects accessible spaces. It begins at accessible parking or passenger loading zones, passes through accessible entrance(s), and leads to accessible spaces or areas within a building. It includes restrooms, drinking fountains, corridors, hallways, ramps, elevators, etc. The clear width of such a path and the minimum width when passing by an obstruction is shown in Figure 3. Doors within an accessible route must meet clearance and width requirements which are dependant on the door type, approach, and placement. Figures 4 and 5 show pull side and push side requirements, respectively, for a swinging door. For more information about accessible routes and doors, please refer to CABO/ANSI A117.1.

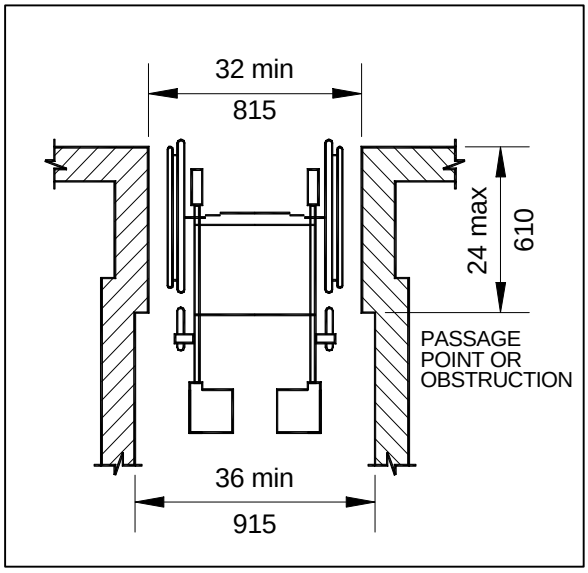

Figure 3: Minimum Clear Width for Single Wheelchair

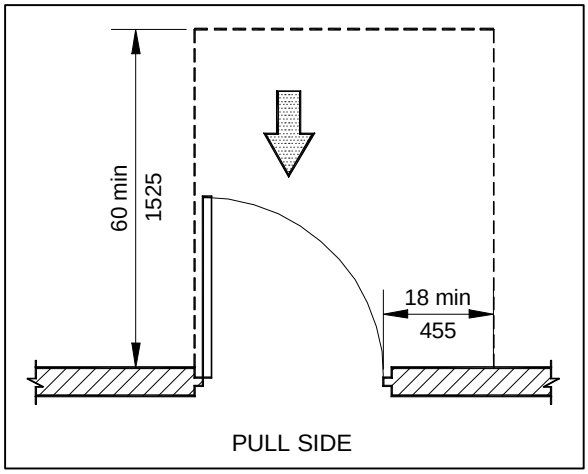

Figure 4: Swinging Door Pull Side Approach

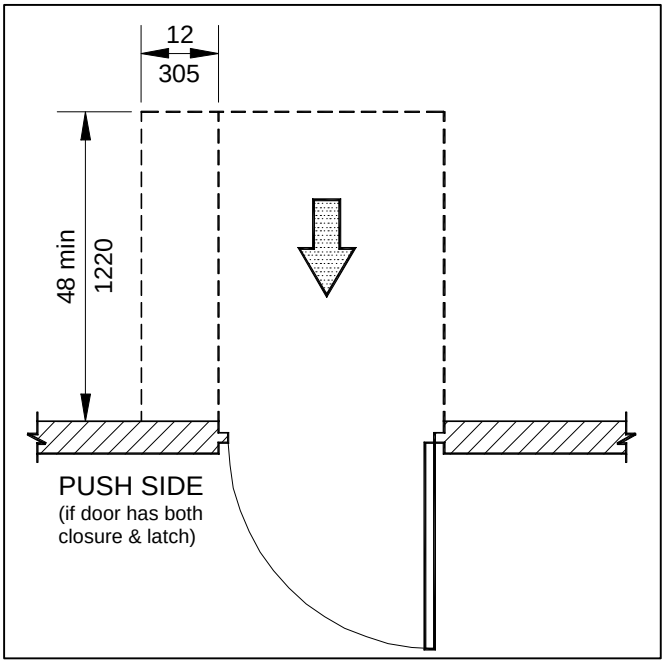

Figure 5: Swinging Door Push Side Approach

WHAT ARE ACCESSIBILITY REQUIREMENTS FOR NEW CONSTRUCTION

ACCESSIBLE ROUTE

All new buildings and facilities, with the exception of detached one and two family dwellings, temporary construction trailers, and buildings of Use Group U, shall have at least one accessible route which connects all accessible elements in the building. Accessible routes shall not pass through kitchens, storage rooms, restrooms, etc. At least 50% of all entrances to a building, but not less than one, shall be accessible.

ELEVATORS, LIFTS, RAMPS

With the exception of health care offices, passenger transport buildings, and multi-tenant buildings of Use Group M, elevators or ramps are not required to connect accessible floors in buildings less than three stories in height or less than 3,000 SF (280 m^2) per floor. In new construction platform lifts are not permissible when providing an accessible route. For more information on elevator requirements, refer to CABO/ANSI A117.1.

TOILET FACILITIES

At least one of each fixture type provided in all public toilet rooms shall be accessible. All accessible toilet rooms shall be provided with unobstructed wheelchair turning space (Figure 2) and all accessible fixtures shall also have an unobstructed clear floor space. In multiple user toilet rooms, at least one toilet stall shall be wheelchair accessible. When six or more water closets are provided, at least one additional stall shall be ambulatory accessible. See CABO/ANSI A117.1 for more information on ambulatory accessible stalls.

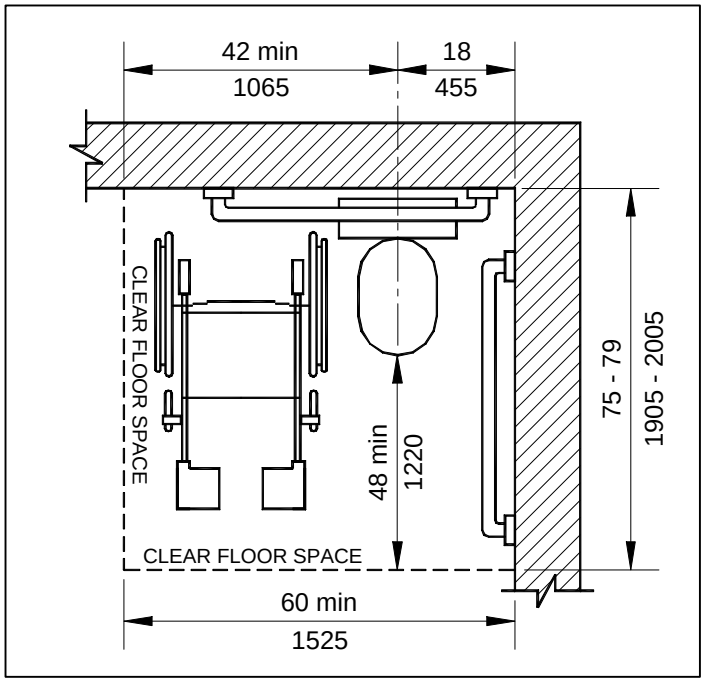

Figure 6: Clear Floor Space at Water Closets

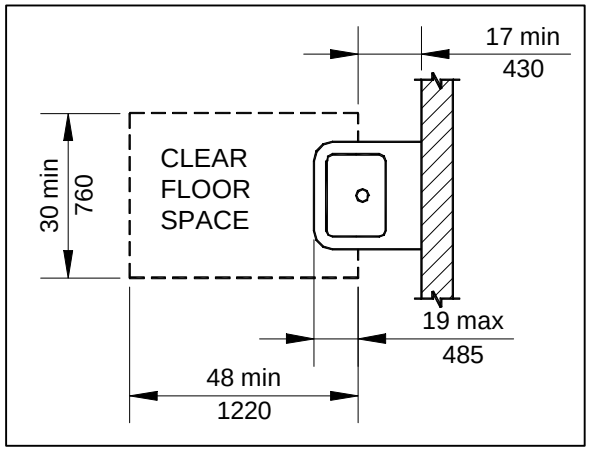

Figure 7: Clear Floor Space at Lavatories and Sinks

Water Closets/Toilets: All water closets shall have a minimum, unobstructed clear floor space (Figure 6). This space allows the wheelchair user to make a smooth transfer from the wheelchair to the water closet. LAVATORIES AND SINKS MAY NOT ENCROACH INTO THIS CLEAR FLOOR. See Figure 8 for a typical wheelchair accessible stall.

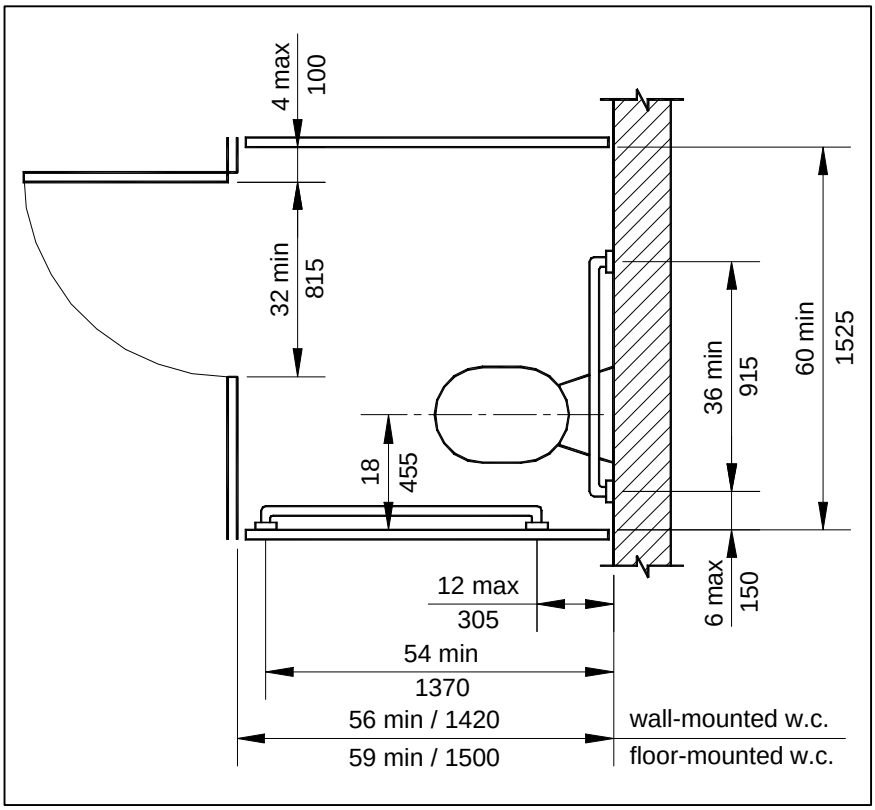

Figure 8: Wheelchair Accessible Stall

Lavatories: All lavatories shall have an unobstructed clear floor space as shown in Figure 7. The rim of the fixture shall be a maximum of 34 in (865 mm) above the finished floor. The lavatory shall extend a minimum of 17 in. (430 mm) from the wall. Adequate knee and toe clearance shall also be provided, see CABO/ANSI A117.1. Exposed pipes beneath the lavatory shall be wrapped or otherwise protected against contact.

Grab Bars: All grab bars shall be mounted horizontally between 33 in. and 36 in. (840 mm and 915 mm) above the finished floor. See Figure 9 for typical mounting dimensions. All grab bars shall be capable of resisting a force of 250 lbs (1.1 kN) in any direction.

Single Use Toilet Room: All fixtures in single user toilet rooms must be accessible and must be provided with an unobstructed wheelchair turning space. See Figure 10 for a typical single user toilet room.

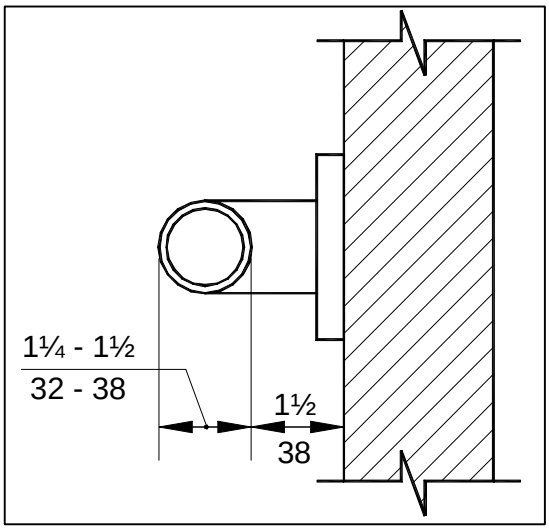

Figure 9: Typical Grab Bars

CODE TIPS

- A door may swing into the wheelchair turning space.
- A door may swing into a fixture's clear floor space of an individual use toilet room only if there is a wheelchair clear floor space outside of the door swing.
- Fixtures may not encroach into the clear floor space of other fixtures. However, fixture clear floor spaces and the wheelchair turning space may overlap.

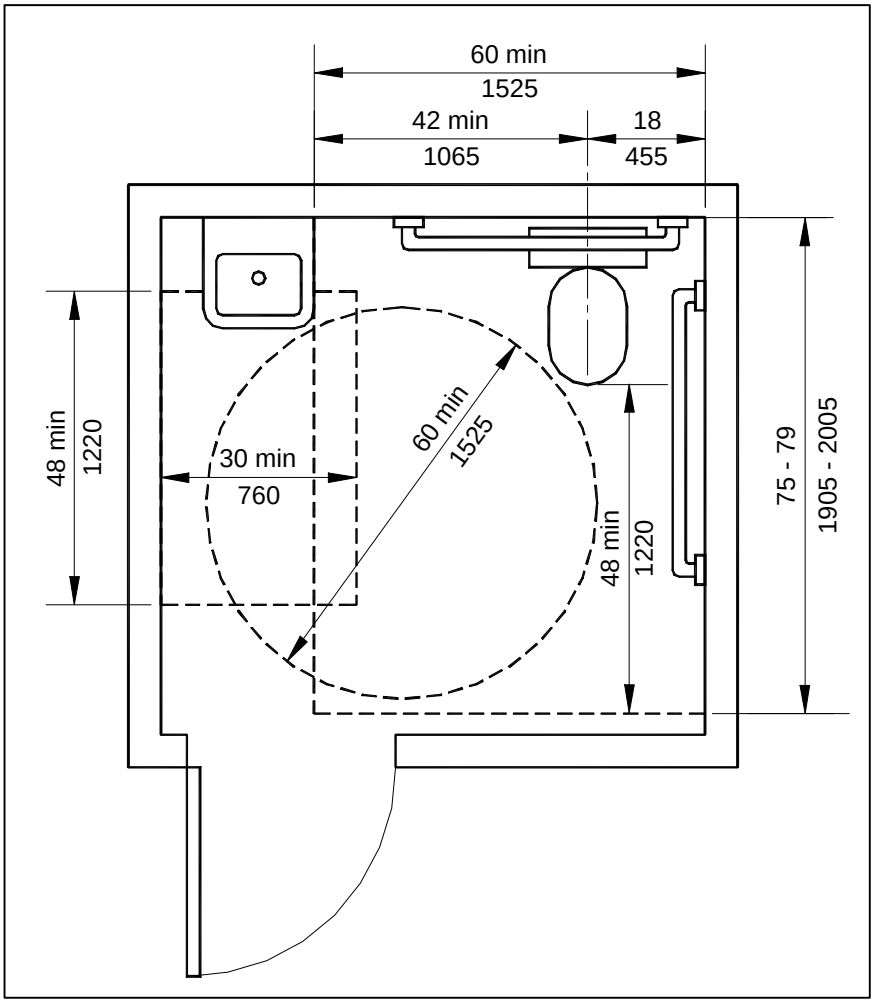

Figure 10: Typical Single User Toilet Room

SINKS

Sinks have the same requirements as lavatories; see the previous page for more information. Sinks associated with coffee pantries, galleys, etc. need not be provided with knee and toe clearance, however the controls shall be accessible and shall be reachable with a wheelchair side approach.

DRINKING FOUNTAINS

Drinking fountains must be provided with an unobstructed clear floor space equal to the wheelchair clear floor space (Figure 1). The minimum height of the spout outlet shall be 36 in. (915 mm) above the finished floor. Knee and toe clearances are also required; for more information see CABO/ANSI A117.1.

URINALS, BATHTUBS, SHOWERS

For specific requirements for urinals, bathtubs, showers, and other accessible fixtures, see CABO/ANSI A117.1.

COUNTERS AND CHECKOUTS

Work surfaces, service counters, tray slides, tables, teller stations, sales windows, etc. shall have a height above the finished floor between 28 in. and 34 in. (710 mm and 865 mm). However, checkout counters may be a maximum of 38 in. (965 mm) above the finished floor with any lip or protective edge limited to 40 in. (1015 mm). Office pantries, galleys, etc. must meet the above requirements.

WHAT ARE THE ACCESSIBILITY REQUIREMENTS WHEN ALTERING EXISTING CONSTRUCTION

Alterations to a space or area in an existing building shall be fully accessible. Therefore, new corridors, doorways, public counters, public restrooms, etc. shall meet the requirements for new construction. In addition, the accessible route to the altered area must be upgraded for accessibility. That is, the route from the accessible entrance to the altered area must be made accessible. While the code requires that the accessible route to an altered area be fully accessible, it also recognizes a reasonable cost limit to accomplish that goal. A cost limitation of 20% of the cost of the alterations (this includes mechanical, electrical, and plumbing) is considered a reasonable limit when upgrading an accessible route. (Restrooms and drinking fountains that serve the altered area are considered part of the accessible route.) Any upgrades beyond the 20% limit are not required to be completed until the next time the area is altered; at that time, a new 20% limit will be computed based on the cost of the new alterations. Over time, through successive alterations to the existing building, the entire accessible route for all building areas will have been upgraded. **Please note: Accessible entrances and accessible restrooms should be given the highest priority when upgrading existing building elements.**

FOR EXAMPLE

A new tenant is to fill a suite at an existing office building. The alterations in the suite include new offices, corridors and open office area, and cost $100,000. Therefore an additional $20,000, or 20% of the project cost, must be spent to upgrade the accessible route.

COMMON IMPROVEMENTS TO UPGRADE THE ACCESSIBLE ROUTE

- Accessible entrance
- Wheelchair accessible toilets
- Accessible lavatories
- Accessible drinking fountains
- Door clearances
- Levered door hardware
- Signage
- Accessible elevators

UPGRADING TOILET FACILITIES

The extent to which an existing toilet room is to be upgraded depends on the existing conditions. Listed below are the conditions of eligibility for upgrading an existing toilet room.

1. **ALTERNATE STALL:** An alternate stall (Figure 11) may be installed in the existing toilet room ONLY IF installing a wheelchair accessible stall involves the removal or alteration of a structural member that is an essential part of the structural frame and the existing number of fixtures must be maintained per the plumbing code.

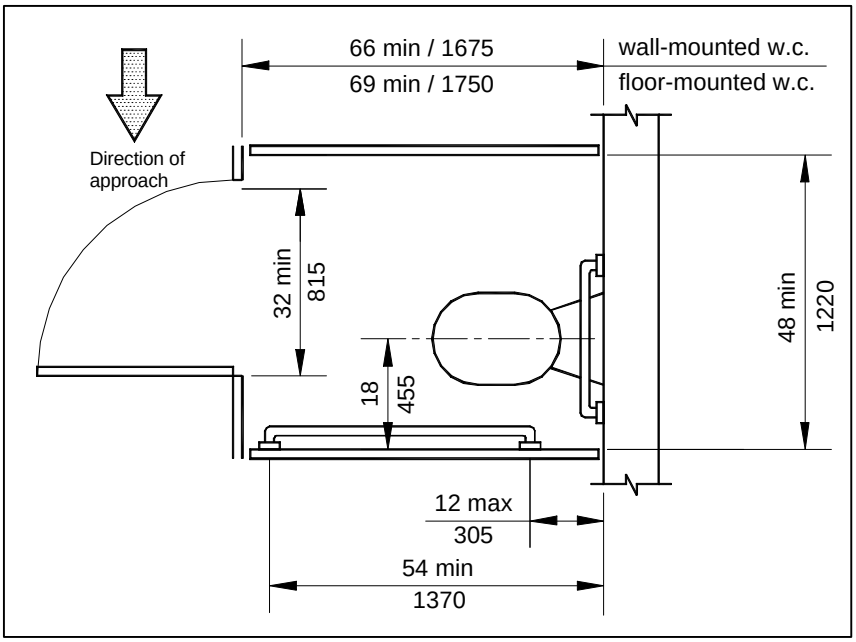

Figure 11: Alternate Wheelchair Accessible Stall (for upgrading only)

2. **UNISEX TOILET:** A unisex toilet room (Figure 10) on the same floor as the alterations, may be installed ONLY IF installing a fully accessible stall in the existing toilet rooms that serve that floor involves the removal or alteration of a structural member that is an essential part of the structural frame and the existing number of fixtures must be maintained per the plumbing code. Please note: If the installation of a unisex toilet is chosen over other options, then its installation must be completed regardless of the associated computed cost limit.

3. **ADA STANDARD STALL:** If the building where the alterations are taking place was constructed prior to 1997, AND fully meets the requirements of the Americans with Disabilities Act Accessibility Guidelines (ADAAG) for standard stalls, then the existing stalls are not required to be upgraded.

4. **ADA UPGRADES:** If the building where the alterations are taking place was upgraded prior to 1997 and a standard stall, an alternate stall, or a single user toilet room was installed in accordance with the ADAAG, then the existing stalls or toilet room is not required to be upgraded.

5. **FULLY ACCESSIBLE STALLS:** All restrooms not meeting any of the above conditions must be upgraded to meet the accessibility requirements of the current code.

UPGRADE TIPS

- If the cost of upgrading restrooms for both sexes exceeds the computed cost limit, it is permissible to upgrade one sex only.
- If the cost of upgrading the restrooms far exceeds the computed cost limit, then the restrooms should be upgraded as much as is possible within the limitation, i.e., add grab bars to an existing stall, lower fixtures, etc.
- Wheelchair accessible stalls are NOT required to be placed at the end of a line of toilet stalls.

ACCESSIBILITY COMPLIANCE FORM

When plans are submitted to Fairfax County for review, an *Accessibility Compliance Form* (attached herewith) must be completed fully by the project designer and attached to each set of plans. Project information, level of compliance, and upgrades to be made under the 20% cost limitation must be noted if applicable. It is the responsibility of the designer to ensure the altered space, accessible route, and upgrades meet the provisions of the code; therefore this form must be completed by the project designer.

WHAT ARE RESOURSES FOR ACCESSIBILITY RESOURCES

Fairfax County
Office of Building Code Services, DPWES
12055 Government Center Parkway, 3rd Floor
Fairfax, Virginia 22035
703-222-0114 (voice)
703-324-1877 (TTY)
www.fairfaxcounty.gov/dpwes

International Code Council
(Formally BOCA)
4051 W. Flossmoor Road
Country Club Hills, Illinois 60478
800-323-1103 (voice)
www.iccsafe.org

United States Department of Justice
950 Pennsylvania Avenue, N.W.
Washington, D.C. 20530
800-514-0383 (voice/TTY)
www.usdoj.gov/crt/ada

ADA Information Center for the Mid-Atlantic Region
451 Hungerford Drive, Suite 607
Rockville, Maryland 20850
800-949-4232 (voice/TTY)
www.adainfo.org

WHAT ARE FREQUENTLY ASKED QUESTIONS

Does Fairfax County enforce the ADA?	No. The ADA is a Federal law. Fairfax County enforces the accessibility provisions of the building code which is a state law.
If I'm altering a tenant space in an existing office building and an accessible toilet room is provided on the floor below, do I need to upgrade the restrooms on my floor?	Yes. The building code requires that the accessible route to the altered area be upgraded, this includes the restrooms that serve that area.
What part of the code tells me I need to spend 20% of the project cost to upgrade for accessibility?	Section 1110.2.1 of the BOCA Code requires that the entire accessible route be upgraded completely. However, exception 1 exempts alterations greater than 20% of the project cost.
Do all personal offices need to be accessible?	No. However, the entrances to all offices must be accessible. Offices for disabled workers must be altered to accommodate the needs of the worker.
Is the private toilet room for the CEO of my company required to be accessible?	No. However, the room is required to be adaptable for future conversion to an accessible toilet room.
Is a restaurant kitchen required to be accessible?	No. However, the kitchen must be altered to accommodate a disabled employee if one is hired.
When upgrading the toilet facilities of an office building, can I provide a single user toilet room rather than upgrading the existing multi-user restroom?	No. However, this would be permissible if upgrading the existing restroom requires the removal of a structural system member which is integral to the building's structural integrity and the existing number of fixtures must be maintained.
Is the second floor restroom of a building without an elevator required to be accessible?	Yes. The building code does not provide exemptions for this condition. While accessible restrooms are designed to accommodate a wheelchair user, not all disabled persons are wheelchair-bound.
Can an automatic door opener be used for a door that lacks the proper pull or push side clearances?	Yes, provided the installation of the door opener meets the requirements of CABO/ANSI A117.1.
Can the installation of fire alarms equipped with strobe lights be used towards the 20% upgrade cost limit?	No. The BOCA Code requires the 20% cost limit to be spent upgrading the accessible route. Fire alarm systems are not considered part of the accessible route.

This document is available in an alternative format upon request. Please contact the ADA representative for the Department of Public Works and Environmental Services, Room 646, the Herrity Building, 12055 Government Center Parkway, Fairfax, Virginia 22035-5502. Call 703-324-1828 (voice) or 703-324-1877 (TTY). Allow seven days for preparation of the material.